

Claims

1. A process for removing mercury compounds from a glycol- and/or alcohol- containing stream which contains said mercury compounds comprising the step of contacting said glycol- and/or alcohol-containing stream with a bed of solid absorbent particles, said absorbent particles comprising a sulphided metal, optionally supported on support material, or sulphur supported on a carbon support.
2. A process as claimed in claim 1, wherein said sulphided metal is selected from iron sulphide, copper sulphide and nickel sulphide or a mixture of said metal sulphides.
3. A process as claimed in claim 1 or claim 2, wherein said absorbent particles further comprise alumina or a refractory cement.
4. A process as claimed in any of claims 1 - 3, wherein said absorbent particles further comprise zinc oxide, zinc carbonate or zinc bicarbonate.
5. A process as claimed in any of claims 1 - 4 wherein said sulphided metal is formed by treating a metal compound with hydrogen sulphide, carbonyl sulphide, a mercaptan or a polysulphide.
6. a process as claimed in any one of claims 1 – 5, wherein the glycol- and/or alcohol-containing stream is contacted with said solid absorbent particles at a pressure of less than or equal to 350 bar and a temperature which is less than or equal to 50°C.
7. A process as claimed in any one of claims 1 - 6 wherein said sulphided metal is formed in situ in the absorbent bed by contacting an absorbent precursor with a sulphur-containing compound in the glycol- and/or alcohol- containing stream.
8. A process for removing water, sulphur compounds and/or carbon dioxide from a hydrocarbon-containing stream which additionally contains at least one compound of mercury or elemental mercury comprising :
  - a) contacting the hydrocarbon stream with a liquid absorbent stream, comprising a glycol and/or an alcohol, thereby to absorb at least some of the water, sulphur compounds and/or carbon dioxide and mercury from the hydrocarbon stream into the liquid absorbent stream, to form a loaded liquid absorbent stream which contains mercury compounds;
  - b) removing said mercury compounds from said loaded liquid absorbent stream using a process as claimed in any of claims 1 - 7 to form a treated liquid absorbent stream containing a reduced concentration of mercury compared with the loaded liquid absorbent stream

c) optionally, drying the treated liquid absorbent stream,  
to form a liquid absorbent stream which may be recirculated to step a), optionally  
after mixing with a fresh liquid absorbent stream.